

## CHAPTER 4

# Logistics

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APA operations require significant logistical integration, as they involve preparation for and execution of deployment, employment, redeployment, and regeneration. The magnitude of logistics support is directly related to the force module planned for the operation. Integration of APA operations into existing logistics systems can reduce deployment requirements. Therefore, one goal of APA logistics is to use existing logistics systems and infrastructure wherever possible. Use of existing HNS agreements, which should be negotiated in peacetime if possible, and interservice support by all elements of the APA is encouraged. Reliable HNS can play a large role in facility, transportation, supply and service support. Continuous support must be provided for the duration of the APA operation and subsequent ground operations and establishment of lines of communication (LOC).

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## RESPONSIBILITIES

The CJCS, the military service components, Army forces, MSC, the combatant commander, the supporting CSS commander, the Army forces/heavy brigade commander, and the USAMC LSE and USAMMA MLST all have responsibilities for APA logistics.

### **Chairman, Joint Chiefs of Staff**

The CJCS provides broad logistics guidance to the services and unified commands.

### **Military Service Components**

Military service components in the unified command are responsible for providing logistics support to their subordinates and ensuring forces are trained and equipped to conduct APA operations. Services also support deploying forces either directly or through procedures arranged with home stations.

### **Military Sealift Command**

MSC plans logistics support for movement of the ships and for support of the embarked personnel.

### **Combatant Commander**

The combatant commander coordinates basic logistics functions within the theater of operations and assigns logistics tasks to service components to provide interservice support.

### **Supporting CSS Commander**

The supporting CSS commander will execute logistics plans for support of the APA brigade force and submit logistics support requirements to the brigade commander for inclusion in airlifted element, deployment, RSO&I, and other logistics plans.

### **ARFOR/Heavy Brigade Commander**

The ARFOR/heavy brigade commander is responsible for broad logistics planning, to include—

- Coordinating APA logistics activities with the senior logistics support force commander to prioritize and allocate resources.
- Developing the supporting logistics plans.

- Reviewing logistics plans for subordinate elements to ensure an integrated plan.
- Coordinating with higher headquarters for the use of strategic lift for retrograde operations, for example, aeromedical evacuation.
- Coordinating with higher headquarters regarding interservice support requirements tasked to the ARFOR.
- Determining composition of the airlifted element, to include specifying prescribed loads for air movement.
- Developing the deployment plan.

- Developing the RSO&I plan.
- Assigning PSA responsibilities (FM 55-65).
- Making decisions for redistribution of assigned equipment and supplies based on employment mission.

## **USAMC LSE and USAMMA MLST**

The USAMC LSE and USAMMA MLST coordinate with the senior logistics support force commander for logistical support of the APA mission and determine LSE and MLST capabilities needed to support APA missions.

## **CONCEPT**

The logistics concept must address the broad functional areas of facilities, equipment and supply, maintenance, transportation, engineering, health and other services, and security.

### **Facilities**

Existing facilities should be used whenever possible to shorten the time required to become fully operational. Key factors for the use of those facilities are detailed below.

### **Beaches**

Logistics considerations drive beach selection for APA operations. Desirable characteristics include—

- Egress and road networks to inland destinations.
- Availability of staging areas near discharge points.
- Availability of bulk fuel storage facilities.
- Ability to refuel watercraft and availability of potable water, lubricants, hazardous waste disposal areas, sludge and water disposal, and ration replenishment for these vessels.
- Suitable beach gradients; near-shore and offshore hydrographic conditions.
- Landing points and safe havens for ligherage.

- Availability of sites suitable for ammunition storage.

### **Sea Ports of Debarkation**

Considerations include—

- Ability to accommodate APA ships: water depth, length, overhead clearance, and maneuver room.
- Port services, that is, navigation aids, pilots, and tugboats.
- Discharge capability, that is, pier space, staging areas, covered storage, pier width, capacity and availability of heavy lift cranes, container and materials handling equipment (MHE).
- Lighting to support 24-hour operations.
- Ability to refuel watercraft and availability of potable water, lubricants, hazardous waste disposal areas, sludge and water disposal, and ration replenishment for these vessels.
- Bulk fuel to top off discharged vehicles and bulk fuel tankers.
- Ability to berth Army watercraft discharged from the HLPS at the port.
- Proximity to the APOD.
- Availability of main supply routes (MSRs).

## Aerial Ports of Debarkation

The APOD is the authorized air point of entry into, and departure from, the AO. The air component commander of the joint force will establish and operate it. If tactical airfields are established to support employment, the air component commander or the Army component—depending upon the predominant user of the airfield—may operate them. Considerations for the APOD include—

- Runway and taxiway capability for aircraft.
- Throughput capacity for mission requirements.
- Aircraft staging areas sufficient for aircraft requirements.
- Instrument and navigation aids: air traffic control capability with radar-assisted landings and takeoffs and effective radar surveillance and communications sufficient to achieve positive airspace control.
- Staging areas available for temporary staging of airlifted elements, personnel, and cargo.
- An all-weather road network that links the airfield with the SPOD and assembly area.
- MHE to discharge aircraft.
- Airfield lighting to support 24-hour operations.

## Tactical Airfields

Considerations for tactical airfields, some of which also relate to the APOD, are fuel; Class V receipt/issue, loading, arming/dearming and storage areas; crash, fire, and rescue; weather; and engineering and other support.

**Fuel.** Fuel considerations include type, quantity, and quality of petroleum, oil, and lubricants (POL) the HN is willing to provide and the compatibility of systems (HN to US aircraft/HN to tactical airfield fuel dispensing system). Maximum use of existing storage and transportation facilities is critical as the initial POL discharge will saturate the tactical systems. Space to install fuel systems with safety buffer zones and room for system expansion must be considered in addition to interference with other airfield facilities.

**Class V Receipt/Issue, Loading, Arming/Dearming and Storage Areas.** Procedures must be established prior to the arrival of tactical units. An ammunition support team must be deployed to arrive in the marshaling area prior to arrival of APA vessels to provide initial Class V accountability and visibility of ammunition arriving in theater. The Class V storage area should be as close as possible to the port loading and discharging area, but comply with existing safety requirements.

**Crash, Fire, and Rescue.** Tactical and geographic considerations, dispersal of unit equipment, and availability of HN assets must be considered.

**Weather.** Weather service may be provided by unified CINC, air component, ARFOR, Air Mobility Command, or the HN.

## Engineering and Other Support

Requirements for engineer support will vary with each operation. Requirements may include clearing obstructions; horizontal, vertical, and underwater construction, including airfield, port, and pipeline construction/repair; airfield power supply; and heavy engineer equipment and utilities, including prime power supply. Other considerations are water supply/hygiene and heavy equipment, container, and MHE support.

Engineers may have to construct additional facilities at marshaling and staging areas or improve facilities, roads, or airfields to accommodate increased use. The primary concern, however, is in the marshaling area. Engineer tasks will focus on improvement of SPOD/APOD facilities, ports, and beaches, to include providing electric power to enhance throughput capability and ensure continuous operations. Construction of fuel, ammunition, and water storage facilities and road maintenance/improvement occur simultaneously. To ensure proper utilization, control of engineer assets should be centralized throughout the theater reception and onward movement phase. If the required construction tasks exceed the capabilities of the engineers, the ARFOR commander may request additional support through the

chain of command. If additional support is required, the equipment and supplies must be drawn from the HN, contracted resources, supported or supporting CINC's assets and included in the airlifted element or transported by sealift.

Army engineer detachments (dive) also provide critical support in the initial preparation of the SPOD. They provide the capability to survey the port and identify port characteristics and underwater obstacles that may obstruct discharge space at the pier. They also perform hydrographic/beach surveys to determine feasibility of conducting LOTS operations and a multitude of other dive and salvage support missions. The engineer detachments are assigned/attached to the CTG in the theater of operations.

### **Equipment and Supply**

Supply planning for deployment is similar to that for contingency operations. Supplies for the first 30 days of operations for early deploying units of the contingency corps are stocked aboard APA container ships. However, if an operation requires split employment of APA assets, this stockage level will be reduced to the 15 days that are collocated with the brigade. Planning must ensure that materiel that is required but not pre-positioned is included in the air flow to accompany the airlifted element. Latitude to adjust the air flow to support logistics requirements may be available. The JTF/ARFOR commander must prescribe loads for the airlifted element to support operations before discharge of pre-positioned stocks. Planning should consider interservice and HNS agreements. The JTF/ARFOR commander must prescribe stockage levels and distribution means (unit or supply point) in the marshaling area pending establishment of a permanent lodgment. The ARFOR commander is responsible for providing logistics support to the heavy brigade.

### **Maintenance**

Maintenance planning prior to deployment focuses on serviceability of equipment programed in the airlifted element. This airlifted equipment must be operational to support initial

RSO&I operations until ships are discharged and the appropriate capability arrives in the marshaling area to repair inoperable equipment. The ARFOR/JTF commanders must provide maintenance support at both the SPOD and APOD. Maintenance skills must match the equipment scheduled to arrive at those locations. If required, the ARFOR must plan for the maintenance of Army aircraft at intermediate airfields. A USAMC LSE may be used as an interim maintenance capability.

To continue the depreservation and prepare equipment for issue, adequate maintenance capability must arrive in the marshaling area prior to ship discharge. First priority must be placed on equipment for APA theater-opening force modules, then it will shift to other priorities established by the JTF commander. Personnel must segregate damaged equipment and equipment that requires urgent modification or maintenance. Repairs to damaged equipment are made only as the depreservation work load permits. Planners must consider unique maintenance requirements and establishment of LSE and an interim maintenance capability. For example, maintenance of Army watercraft deployed with theater-opening force Module D requires marine-specific floating craft maintenance support.

### **Transportation**

The deployment phase of an APA operation is transportation-intensive. The movement plan for APA operations is considerably more complex than that for normal tactical operations. At a minimum, planners must include MSR designations; cargo and unit staging areas; transportation requirements; establishment of movement control organizations; designation of staging and inspection areas; and establishment of procedures for command, control, and coordination. Planning must also address airlift of the airlifted element, sea movement of the APA ships, command and control of the movement—including coordination and monitoring of departures from all POEs and arrivals at all PODs—and security for all phases of the operations. Transportation efforts during the RSO&I phase will focus on support of the discharge. Plans for movement of personnel and

equipment from the APOD to element staging areas must be detailed. Planning must address use of MHE and APOD/SPOD discharge support.

### **Health and Other Services**

For the deployment phase, the ARFOR/heavy brigade commander will rely primarily on organic capabilities and the use of local facilities as necessary. During the RSO&I phase, plans should emphasize use of HN or other service capabilities to the extent possible. Health services, such as a corps-level hospital, require CINC coordination. The ARFOR commander will coordinate with unified command surgeon or other services for aeromedical evacuation.

Provision of utilities—water, electric power, and so forth—are primary concerns during alert and deployment. Planning for RSO&I will focus on automated information system support, utilities support, civil affairs, contracting, and disbursing. Civil affairs personnel will provide interface with the HN. Contracting and disbursing (Class A) agents must be prepared to pay for services and HNS as required.

### **Security**

Rear operations, military police (MP) and HNS, civilian law enforcement, and traffic control must be considered and requirements coordinated with the ARFOR commander.

## **MOVEMENT**

Movement requirements address the organization of movement groups during each phase of deployment. They include passengers and equipment TAT and NAP and are tied to specific strategic airlift missions from the APOE. The movement plan must address—

- Movement requirements.
- Transportation modes for each phase of movement.
- Movement control procedures for each phase of movement.
- Responsibilities for operating departure airfield control group (see FM 55-1, Appendix 3).
- Inspection areas and procedures for deploying personnel, equipment, and supplies.
- Procedures for assembling aircraft/loads.
- Coordination and reporting procedures with higher headquarters and external supporting agencies.

### **Air Movement Plan**

The Air Movement Plan is a combination of unit-developed SOPs, cargo and passenger manifests, the Unit Aircraft Utilization Plan, and other supporting documentation such as that relating to hazardous cargo. The plan shows how

the deploying unit intends to airlift personnel and equipment while maintaining C<sup>2</sup> of the movement. It prescribes the sequential movements of units and elements in each aircraft. The deploying unit commander writes the airlift plan and submits it to the affiliated airlift control squadron for review.

### **Air Movement Sequence Table**

Each deployable unit is responsible for developing an air movement sequence table that reflects the time-sequenced tasks required to accomplish air movement preparation. These required tasks facilitate the unit and supporting elements' ability to meet a deployment that reflects the supported CINC's TPFDD priorities. The air movement sequence table specifies the tasks required for the unit and support elements to establish such operations as ammunition draw, equipment and personnel preparation, and hand-off procedures in marshaling areas and departure airfield control groups (DACCs). This document provides a basis for movement control organizations to coordinate marshaling and staging area operations and loading of aircraft.

### **Unit Aircraft Utilization Plan**

This plan shows what will be moved in each aircraft. Data must be accurate and match TC

ACCIS (Automated Unit Equipment List [AUEL]) data. Total airlift requirements are documented using the Unit Aircraft Utilization Summary (see FM 55-12).

## Sea Movement Plan

Sea movement includes the APA and other assigned ships and escorts. MSC prepares the Sea Movement Plan, which identifies those naval forces needed for replenishment, US Army personnel designated as super cargo, and security en route and in the marshaling area. The initiating directive will specify command relationships and responsibilities for sea movement.

## RSO&I Plan

This plan delineates the JTF/ARFOR commander's concept for RSO&I. It sets forth the task organization to support these activities and assigns tasks to subordinate elements located at the SPOD and APOD for equipment issue and initial CSS operations. The plan, which the ARFOR commander submits to the unified CINC for approval, may include—

- Command and control of RSO&I activities.
- Detailed procedures for port clearance and onward movement.
- Arrival airfield control group (AACG) and PSA support requirements.
- Customs clearance.
- Marshaling area overlay.
- Arrival schedule for the airlifted element.
- Port clearance movement program.
- Highway regulation plan.
- Rail and inland waterway movements.
- Communications.
- Reporting requirements.

- Force tracking and ITV requirements and procedures.
- Field service support.
- Health service support.
- Traffic control.
- Security.

The JTF/ARFOR commander, in coordination with the unified CINC, normally determines the plan's composition and format. It will contain only those elements of information that are not addressed in RSO&I SOPs.

## Movement to TAA

The senior movement control element is responsible for planning and executing movement control operations in support of unit movements to the TAA. If deployed, the DTO and the movement control officer will coordinate with senior movements headquarters in the theater of operations. Movement clearance and transportation, as directed by the brigade commander, are scheduled to support requirements.

The brigade has the responsibility for movement planning, highway regulation, and establishment of MSRs in the brigade area. Where operationally feasible, the brigade and FSB will maximize use of organic assets in moving to the TAA. The brigade will coordinate with the senior movement control element for transportation support requirements beyond the brigade's organic capability. Support will be provided based on preestablished movement priorities. Coordination must be effected with the MP, as they can provide security for the MSR and ammunition supply route.

The supported brigade S4 will establish rest areas, refuel points, and feeding points en route to the TAA. Additional support may be obtained through contracting, HNS, other Army forces already deployed, or sister and coalition forces.

## DEPLOYMENT

Once the brigade forces are deployed, the FSB's primary role is to provide direct support to the brigade and individual units operating in the

brigade area. Effective integration of heavy and light forces maximizes the capabilities of each type of force by using the advantages of one type

to offset the limitations of the other. Not all situations are suitable for heavy/light operations. Therefore, the force must be matched to the mission, enemy, and terrain. Regardless of the force, information must flow from the deployed unit to the controlling headquarters. This information includes—

- Critical fuel and ammunition requirements.
- Status of classes of supply.
- Maintenance requirements and backlog.
- Class IX requirement and availability.
- Movement requirements and availability of transportation assets.
- Availability of medical treatment and evacuation assets.
- Locations of support elements.
- Status of support personnel.
- Anticipated support problems.

The deployed corps support group (CSG) and corps support battalion will provide backup support to the FSB as required. The CSG will

operate and control the logistics base through which support is provided. If the CSG commander is the senior logistician in theater, he can expect to provide primary support for the developing theater. This mission will continue until adequate additional CSS assets flow into the theater. The CSG primary mission includes, but is not limited to—

- Supply and service.
- Maintenance.
- Field services.
- Transportation.
- Ammunition (breakbulk and containerized).

APA sustainment cargo should be brought to the logistics base. The CSG should be prepared to handle any unit basic load that exceeds the brigade and FSB's capability to move in a single lift. The logistics base should be prepared to handle all classes of supply. Additional missions that the CSG should be prepared to support are the theater-opening force module mission and the staging area mission.

## EMPLOYMENT

Logistics support to the deployed brigade, which is METT-T dependent, will be consistent with the principles outlined in FM 100-10. Due to the tailored support configuration provided by APA, CSS organizations may initially have responsibilities broader than those delineated in current doctrine. All CSS forces must be augmented to meet support requirements of the heavy brigade.

Key to successful employment support is the sequencing of combat, CS, and CSS equipment from the APA ships. If available, HNS, contracting, other Army forces, and sister and coalition forces may relieve the pressure to get CSS equipment into place to support the brigade. If no support is available other than that prepared, serious consideration must be given to early discharge of CSS equipment to facilitate the coordinated RSO&I of combat forces.

## REDEPLOYMENT/RECONSTITUTION

After completion of operational requirements, forces move back to designated TAAs. A major focus should be unit integrity and accountability to the maximum extent possible for units, individuals, materiel, supplies, and equipment. Operational requirements may necessitate some changes to units after they arrive in the theater of operations.

Individuals may be returned directly to the replacement support element battalion for redeployment. Commanders report excess materiel to the senior materiel maintenance center for recovery and redistribution. The unit or its parent command is responsible for actions at and support of the TAA. One such action would be the completion of reconstitution and cross-leveling for movement and coordination

with the senior movement control agency/organization.

Upon receipt of movement instructions, forces, individuals, and materiel are moved to the redeployment assembly areas (RAA). At the RAA, units complete activities that could not be accomplished at the TAA. This could possibly include washing major end items and turning in equipment and supplies to USAMC/USAMMA or other designated organizations.

Because of the size of the redeploying force and theater of operations capabilities, an intermediate staging site and final staging area may be required prior to going through the port authority inspector at the POE. Based on the senior movement control agency/organization movement instructions, forces, individuals, and materiel are moved to the POE where they are processed for strategic movement.